



Report VN721 142568.1
Test Report



Applicant

Komitex Lin., LTD
10, 2-ya Promyshlennaya st
Syktyvkar
167981
Republic of Komi
Russian Federation

Reference

Mr. Lazhentsev Ruslan

Application

Determination of colour fastness to artificial light, residual indentation, dimensional stability, density of wear layer and wear resistance.

Test material

“Versailles”

Material used in testing was anonymized for laboratory purposes. A detailed sample list is contained in the report.

Issuing and Signatures

Number of pages contained: 6
Original Issue / Vienna 07.08.2018 / AA

Authorised for Institute
Ing. Hannes Vittek

A handwritten signature in blue ink, appearing to read 'Hannes Vittek', positioned above a horizontal dotted line.

Contents

| | | |
|-----|---|---|
| 1 | Order | 2 |
| 1.1 | Chronology | 2 |
| 1.2 | Samples | 2 |
| 2 | Findings / Tests performed..... | 2 |
| 2.1 | Determination of the type of resilient floor covering | 2 |
| 2.2 | Determination of colour-fastness to artificial light..... | 3 |
| 2.3 | Determination of residual indentation after static loading | 3 |
| 2.4 | Determination of dimension stability and curling after exposure to heat..... | 4 |
| 2.5 | Determination of density of wear layer of resilient floor coverings | 4 |
| 2.6 | Determination of wear resistance of resilient floor coverings (Frick-Taber-Test)..... | 5 |
| 3 | Remarks | 6 |

1 Order

1.1 Chronology

| Date | Received | Order |
|------------|------------|---|
| 09.07.2018 | 10.07.2018 | Determination of colour fastness to artificial light, residual indentation, dimensional stability, density of wear layer and wear resistance. |

1.2 Samples

| Nr. | Received | Sample Identification |
|-----|------------|----------------------------|
| 1 | 09.07.2018 | „Versailles“ |
| 2 | 09.07.2018 | Wear layer of „Versailles“ |

(Unless otherwise stated samples are provided by the customer.)

2 Findings / Tests performed

2.1 Determination of the type of resilient floor covering

Description according to EN 12466*

Test results

Tested sample: 1

| | |
|--------------------------------|------------------------------------|
| Material of the wear layer: | PVC (declaration by the applicant) |
| Construction: | heterogeneous |
| Character of the surface: | non transparent |
| Type of floor covering | smooth floor covering |
| Character of the surface: | grained surface |
| Colour/pattern of the surface: | veined |
| Dimensions: | rolls |

The submitted specimen is a heterogeneous PVC floor covering with a filled fibrous backing according to EN 13413.

2.2 Determination of colour-fastness to artificial light

Test conditions

According to EN ISO 105-B02
 Test equipment: Xenotest 150 S+
 Exposure method: 1
 Kind of motion: Clocking
 Effective humidity: 40 %
 Temperature of the black-panel-thermometer: 45±3 C

Test results

Tested sample: 1

Numerical rating of light-fastness: 6-7

Note: Light-fastness will be evaluated by a comparative scale, which consists of eight blue woollen fabrics, which are dyed gradated regarding their light-fastness and which will be treated under the same conditions as the specimen. It is given in figures, mark 1 thus represents very low and mark 8 very high light-fastness.

2.3 Determination of residual indentation after static loading

Test conditions

According to: EN ISO 24343-1

Test results

Tested sample: 1

| | |
|---|----------------|
| Mean value of indentations after static loading of 15 seconds: | 1,11 mm |
| Mean value of indentations after static loading of 150 minutes: | 1,12 mm |
| Mean value of residual indentation: | 0,24 mm |

2.4 Determination of dimension stability and curling after exposure to heat

Test conditions

According to EN ISO 23999

Number of tests: 3

Test results

Tested sample: 1

| Specimen | Measuring section | Dimensional change [%] | |
|----------|-------------------|------------------------|-----------------|
| | | Length direction | Cross direction |
| 1 | 1 | -0,03 | -0,09 (max) |
| | 2 | -0,05 | -0,09 (max) |
| 2 | 1 | -0,05 | -0,04 |
| | 2 | -0,25 (max) | -0,05 |
| 3 | 1 | -0,05 | -0,04 |
| | 2 | -0,06 | -0,06 |

| | | | |
|--|-------------------------|--------------|-----------|
| Dimension stability (average) | length direction | -0,10 | % |
| | cross direction | -0,05 | % |
| Curling before exposure to heat | | 0,0 | mm |
| Curling after exposure to heat | | 0,0 | mm |

2.5 Determination of density of wear layer of resilient floor coverings

Test conditions

According to: EN ISO 23996

Determination method: Method A (weighing in water)

Number of specimen: 3

Test results

Tested sample: 2

| Density [g/cm ³] | | | |
|------------------------------|------------|------------|--------------|
| Specimen 1 | Specimen 2 | Specimen 3 | Mean value |
| 1,377 | 1,418 | 1,346 | 1,380 |

2.6 Determination of wear resistance of resilient floor coverings (Frick-Taber-Test)

Test conditions

According to EN 660-2
 Construction: heterogeneous
 Density: 1,380 g/cm³
 Number of cycles: 5000
 Number of specimen: 3

Test results

Tested sample: 1

| | specimen 1 | specimen 2 | specimen 3 |
|---|-------------|-------------|-------------|
| Weight loss after 1000 cycles [mg] | 10,7 | 10,3 | 9,8 |
| Weight loss after 2000 cycles [mg] | 27,0 | 26,0 | 25,6 |
| Weight loss after 3000 cycles [mg] | 39,0 | 37,5 | 35,5 |
| Weight loss after 4000 cycles [mg] | 50,0 | 47,8 | 46,8 |
| Weight loss after 5000 cycles [mg] | 61,3 | 56,9 | 53,3 |
| Total weight loss F_{tot} [mg] | 61,0 | 56,4 | 53,0 |

| | average loss of mass F _m [mg/100 cycles] | average loss of volume F _v [mm ³ /100 cycles] |
|-------------------|--|--|
| Specimen 1 | 1,2 | 0,9 |
| Specimen 2 | 1,1 | 0,8 |
| Specimen 3 | 1,1 | 0,8 |
| Mean value | 1,1 | 0,8 |

3 Remarks

Validity

There are no regulations concerning duration of validity in the individual test standards. As the results of the examinations refer only to the submitted and examined samples, the report is valid for these for an unlimited period. A period of validity specified as part of an expert evaluation is in the discretion of the consultant or the OETI.

The applicability of results and expert evaluations for materials not tested is in the responsibility of the applicant. Whereby an apportionment of results as well as any specified period of validity can only be done for identically constructed products and only as long as the product produced unchanged.

Possible national or international restrictions concerning the terms of usability of test and classification reports have to be considered; this is not the responsibility of the test laboratory.

Sample Material

Results of performed tests only refer to the sample material provided.

Without explicit written other agreement testing is destructive and the sample material is transferred to the property of ÖTI, which is entitled to freely decide on storage and disposal.

Issuance

The valid first issue is done in paper and has single-handed signatures. For reference purposes and filing an unsigned electronic duplicate can be delivered in pdf format. Duplicates and translations will be marked accordingly on the cover sheet.

Quality management, Accreditation and Notification

All tests and services are performed under a quality management system according to EN ISO/IEC 17025 respectively EN ISO/IEC 17065.

OETI is accredited as Testing Laboratory and Certification Body for products. It also is a Notified Body for several directives with the registration number 0534 (see <http://ec.europa.eu/enterprise/newapproach/nando/>). Accreditation was provided by Akkreditierung Austria. The scope of accreditation is listed on www.oeti.biz. Due to the system for the mutual recognition of national accreditations (ILAC/IAF), this accreditation is valid worldwide. In this report individual non-accredited test procedures are marked with *. However, the analysis was also carried out for these parameters at the same level of quality as for the accredited parameters.

According to the decree on the use of the accreditation mark ("AkkZV") the accredited Conformity Assessment Body is the only one to use the accreditation mark. Application of the registration number of the Notified Body: As to personal protective equipment (PPE) the requirements of Regulation (EU) 2016/425 have to be kept. With construction products the application is only permitted within the declaration of performance for CE-marking.

Copyright and Usage Notes

It is pointed out, that any alterations, amendments or falsifications of reports not authorized by the issuer of the report will be prosecuted as civil and criminal offences; this especially to the appropriate requirements of ABGB, UrhG, UWG and criminal law and their respective international equivalents.

Reports are protected under international copyright laws. Written consent of the OETI is required for publications (also in excerpt) and reference to tests for public relation purposes. Reports may only be reproduced in full length.

End of report